

We claim:

1. An apparatus comprising a system configured to provide inflow and  
outflow of input coins and notes, wherein said system automatically separates input coins  
and notes into different denominations and wherein said system reuses said input coins  
and notes as said output coins and notes.

2. The apparatus of Claim 1, wherein said notes comprise notes issued by  
greater than one country.

3. The apparatus of Claim 1, wherein said notes comprise notes of greater  
than four denominations.

4. The apparatus of Claim 1, wherein said coins comprise coins of greater  
than four denominations

5. The apparatus of Claim 1, wherein said system further comprises a single  
slot for the inflow of notes.

6. The apparatus of Claim 1, wherein said apparatus is less than 6 cubic feet  
in volume.

7. The apparatus of Claim 1, wherein said notes and coins move through an  
opening in a countertop during the processes of inflow and storage, feedout from storage  
and output of said notes and coins to a user.

8. The apparatus of Claim 1, further comprising a transport belt component  
in communication with said notes, wherein said transport belt component is configured to

receive and deliver notes; and at least one note storage component in communication with said transport belt component, wherein said note storage component is configured to receive notes from said transport belt component and dispense notes to said transport belt component.

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9. The apparatus of Claim 1, further comprising a note detection component configured to identify and confirm the integrity of said notes input into said apparatus.

10. The apparatus of Claim 1, wherein said apparatus is configured for the simultaneous input of coins of greater than four denominations.

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11. The apparatus of Claim 1, wherein said apparatus further comprises a pipe-shaped cover, said cover covering the apparatus.

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12. The apparatus of Claim 1, wherein said apparatus further comprises one or more coin storage components in communication with an upper rotating disk and a lower rotating disk, wherein said upper rotating disk and said lower rotating disk are configured to direct coins into and out of said coin storage component.

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13. The apparatus of Claim 1, comprising one or more note and coin storage components where a last infed note or coin of a particular denomination is the first fed out note or coin of that denomination.

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14. The apparatus of Claim 12, further comprising a coin receiving unit in communication with said upper rotating disk, wherein said coin receiving unit is configured for the input and output of coins.

15. The apparatus of Claim 14, further comprising a coin detection component in communication with said upper rotating disk.

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16. An apparatus for the inflow and outflow of coins and notes comprising a system for receiving and distributing coins and notes, said apparatus further comprising a single slot for the inflow of notes, herein said system automatically separates input coins and notes into different denominations, reuses said input coins and notes as said output coins and notes, and is less than 6 cubic feet in volume.

17. The apparatus of Claim 16, wherein said notes comprise notes issued by greater than one country.

18. The apparatus of Claim 16, wherein said notes comprise notes of greater than four denominations.

19. The apparatus of Claim 16, wherein said coins comprise coins of greater than four denominations.

20. The apparatus of Claim 16, comprising one or more note and coin storage components wherein a last infed note or coin of a denomination is the first fed out note or coin of that denomination.

21. The apparatus of Claim 16, wherein said apparatus further comprises a single slot for the inflow of coins.

22. The apparatus of Claim 16, further comprising a transport belt component in communication with said notes, wherein said transport belt component is configured to receive and deliver notes; and at least one note storage component in communication with said transport belt component, wherein said note storage component is configured to receive notes from said transport belt component and dispense notes to said transport belt component.

23. The apparatus of Claim 22, further comprising a note detection component configured to identify and confirm the integrity of said notes input into said apparatus; and one or more note direction changer components operably linked to said transport belt component and said note storage component, wherein said note direction changer component is configured to direct notes into and out or past each of said note storage components.

24. The apparatus of Claim 22, wherein said note storage component is a film storage drum.

25. The apparatus of Claim 20, wherein said notes and coins move through an opening in a countertop during the processes of inflow and storage, feedout from storage and output of coins to a user.

26. The apparatus of Claim 22, wherein said note direction changer component is a note direction changer wheel.

27. A system for inflow and outflow of notes and coins, comprising:

- a) a single note infeed opening for inflow of different denominations of notes into said system;
- b) a single coin infeed opening for inflow of different denominations of coins into said system;
- c) at least one note detection component configured to identify and confirm the integrity of said notes;
- d) at least one coin detection component configured to identify and confirm the integrity of said coins;
- e) at least one note storage component, wherein a last infeed note of a denomination is the first fed out note

of that denomination;

- f) at least one coin storage component, wherein a last infed coin of a denomination is the first fed out coin of that denomination;.
- g) note movement components for moving notes between said note infeed opening and said at least one note storage component;
- h) coin movement components for moving coins between said coin infeed opening and said at least one coin storage component;
- i) at least one automatic separation component for separating notes into different denominations; and
- j) at least one automatic separation component for separating coins into different denominations.

28. The system of Claim 27, wherein said notes comprise notes issued by greater than one country.

29. The system of Claim 27, wherein said notes comprise notes of greater than four denominations.

30. The system of Claim 27, wherein said coins comprise coins of greater than four denominations.

31. The system of Claim 27, wherein said system is less than 6 cubic feet in volume.

32. The system of Claim 27, wherein said notes and coins in the process of inflow, storage, and outflow move through a countertop.

33. The system of Claim 27, wherein said outflow of notes occurs through said note infeed opening.

34. The system of Claim 27, wherein said outflow of coins occurs through said coin infeed opening.

35. The system of Claim 27, further comprising a transport belt component in communication with said notes, wherein said transport belt component is configured to receive and deliver notes; said at least one note storage component in communication with said transport belt component, wherein said note storage component is configured to receive notes from said transport belt component and dispense notes to said transport belt component.

36. The system of Claim 27, wherein said note storage component is a film storage drum.

37. The system of Claim 27, further comprising a note detection changer component, wherein said note direction changer component is a note direction changer wheel.

38. A method for facilitating the input and output of notes, comprising:  
a) providing a system for inflow and outflow of notes and coins, comprising:

a single note infeed opening for inflow of  
different denominations of notes into said system;



42. The method of Claim 38, wherein said system is less than 6 cubic feet in volume.

43. The method of Claim 38, wherein said notes and coins in the process of inflow, storage, and outflow move through a countertop.

44. The method of Claim 38, wherein said outflow of notes occurs through said note infeed opening.

45. The method of Claim 38, wherein said outflow of coins occurs through said coin infeed opening.

46. The method of Claim 38, wherein said system further comprises a transport belt component in communication with said notes, wherein said transport belt component is configured to receive and deliver notes; said at least one note storage component in communication with said transport belt component, wherein said note storage component is configured to receive notes from said transport belt component and dispense notes to said transport belt component.

47. The method of Claim 38, wherein said note storage component is a film storage drum.

48. The method of Claim 38, wherein said system further comprises a note detection changer component, wherein said note direction changer component is a note direction changer wheel.

49. A method for facilitating infeeding and outfeeding notes of notes to a customer comprising:

- a) providing a notes input and output system having a notes storage



component;

b) accepting input of notes into said system under conditions such that said input notes are stored;

c) outfeeding at least a portion of said input notes so that said input notes are reused as output notes.

50. The method of Claim 49, wherein said system comprises a single slot for the input and output of said notes.

51. The method of Claim 50, wherein said single slot for the input and output of said notes is in communication with a single belt for input and output of said notes.

52. The method of Claim 49, wherein said notes comprise notes issued by greater than one country.

53. The method of Claim 49, wherein said notes comprise notes of greater than one denomination.

54. An apparatus comprising a system for processing coins, wherein said system separates input coins into different denominations and reuses said input coins as output coins, and wherein a last input coin of a denomination is fed out as the first coin of that denomination.

55. The apparatus of Claim 54, wherein said system comprises a coin detection device, wherein said coins are moved horizontally past said coin detection device by said system.

56. The apparatus of Claim 55, wherein said system comprises a first planar member and wherein coins are moved past said coin detection device by said planar member.

5 57. The apparatus of Claim 56, wherein said system comprises a second planar member and at least one coin storage compartment and wherein said coins are moved to said coin storage compartment by movement of said first and second planar member.

58. The apparatus of Claim 57, wherein said planar members rotate.

10 59. The apparatus of Claim 57, wherein said planar members rotate about a common axis, wherein said axis is in vertical orientation, and the said planar members are in horizontal orientation.

15 60. The apparatus of Claim 57, wherein there are two or less planar members.

61. The apparatus of Claim 57, wherein said first and second planar members comprise at least one opening and said coins are moved in a horizontal position when located in said one or more openings.

20 62. The apparatus of Claim 61, wherein said one or more opening are configured to contain one coin at the time.

25 63. The apparatus of Claim 57, wherein during the process of outfeeding coins, said first and second planar members separate said coins one by one from said coin storage compartment and transport said coins to an outfeed opening.

64. The apparatus of Claim 63, wherein said outfed coins are presented as a standing pile of coins.

65. The apparatus of Claim 54, wherein said coins comprise coins issued by greater than one country.

5 66. The apparatus of Claim 54, wherein said coins comprise coins of greater than four denominations.

67. The apparatus of Claim 54, wherein said system further comprises a single opening for the inflow and outflow of said coins.

10 68. The apparatus of Claim 54, wherein said apparatus is less than 3 cubic feet in volume.

15 69. The apparatus of Claim 54, wherein said coins move through an opening in a countertop during the processes of inflow and storage, feedout from storage and output of coins to the user.

20 70. The apparatus of Claim 57, wherein said coins are stored lying on top of each other in said coin storage compartment.

25 71. The apparatus of Claim 61, wherein said first planar member is positioned above said second planar member so that by moving said second planar member so that said opening of said second planar member is aligned with said opening in said first planar member said coins fall from said first planar member into or through said second planar member

72. The apparatus of Claim 56, wherein said first planar member has an opening therein and further comprising a movable floor beneath said first planar member, movement of said movable floor causing said coins to fall from said first planar member

into or through said floor.

73. The apparatus of Claim 57, wherein said coins move less than 8 inches vertically from infeed to entrance into said storage compartment.

74. A system for inflow and outflow of coins, wherein said system separates input coins into different denominations and reuses said input coins as said output coins, comprising;

- a) a single coin infeed opening for receiving a plurality of coins;
- b) a first rotating planar member for separating input coins from said coin infeed opening, said rotating planar member having at least one opening therein configured to accept one coin so that coins are removed from said coin infeed opening by being located in said at least one opening;
- c) a coin detection device adjacent to said rotating planar member, wherein said rotating planar member moves said coins past said detection device;
- d) at least one coin storage compartment; and
- e) a single coin outfeed opening for outfeeding different denominations of coins; wherein the last input coin of a denomination is fed out as the first coin of that denomination from said coin storage compartment.

75. The system of Claim 74, wherein said system further comprises an opening for the inflow of coins configured to accept a plurality of coins.

76. The system of Claim 74, wherein said system further comprises a single opening for the inflow and outflow of coins.

77. The system of Claim 74, wherein said coins comprise coins of greater than four denominations

78. The system of Claim 74, wherein said system comprises at least four of said coin storage compartments.

79. The system of Claim 74, further comprising a second rotating planar member, wherein said first and second rotating planar members rotate about a common axis.

80. The system of Claim 74, wherein said system is less than 3 cubic feet in volume.

81. The system of Claim 74, wherein said coins move through an opening in a countertop during the process of inflow and storage, feedout from storage and output of coins to an end user.

82. The system of Claim 74, wherein said coins are stored lying on top of each other in said coin storage compartment.

83. The system of Claim 74, wherein said coins do not move more than 8 inches vertically from infeed to the entrance of said coin storage compartment.

84. An apparatus for processing coins comprising a horizontally moving planar member configured to transport coins, wherein said horizontally moving planar member facilitates separation of input coins into different denominations, reuse of said input coins as output coins, separation of coins from an input batch, movement of coins past a coin detection unit, and transport to a storage.

85. The apparatus of Claim 84, wherein said horizontally moving planar facilitates separation of coins from said from storage compartment and transport to an outfeed opening.

86. The apparatus of Claim 84, further comprising a second planar member positioned underneath said horizontally moving planar member, said second planar member having one or more openings therein for receiving coins from said horizontally moving planar member.

87. The apparatus of Claim 84, wherein said horizontally moving planar member has an opening therein and further comprising a movable floor beneath said first planar member, movement of said movable floor causing said coins to fall from said first planar member into or through said floor.

88. An apparatus for processing coins by separation of input coins into different denominations comprising a first horizontally moving planar member, a second horizontally moving planar member that rotates about a common axis with said first horizontally moving planar member, a coin detection device, and at least one coin storage compartment, wherein coins are moved past said coin detection device by rotational movement of said first or second horizontally moving planar members and wherein coins are transported to said storage compartment by the rotational movement of said first and second horizontally moving planar members.

89. The apparatus of Claim 88, wherein said first and second horizontally moving planar members have one or more opening therein, said coins being moved in a horizontal position when located in said one or more openings

90. The apparatus of Claim 88, wherein said apparatus is less than 3 cubic feet in volume.

91. The apparatus of Claim 88, wherein said coins move through an opening in a countertop during the process of inflow and storage.

92. The apparatus of Claim 89, wherein said first horizontally moving planar member is positioned above said second horizontally moving planar member so that by moving said second horizontally moving planar member so that said opening of said second horizontally moving planar member is aligned with said opening in said first horizontally moving planar member so that said coins fall from said first horizontally moving planar member into or through said second horizontally moving planar member

93. The apparatus of Claim 88, wherein said first horizontally moving planar member has an opening therein and further comprising a movable floor beneath said first planar horizontally moving member, movement of said movable floor causing said coins to fall from said first horizontally moving planar member into or through said floor.

94. A method for facilitating handling of coins comprising:
- a) providing a system for processing coins by separation of input coins into different denominations comprising:
    - i) a first horizontally moving planar member;
    - ii) a second horizontally moving planar member that rotates about a common axis with said first horizontally moving planar member;
    - iii) a coin detection device;
    - iv) and at least one coin storage compartment; wherein coins are moved past said coin detection device by rotational movement of said first or second horizontally moving planar members and wherein coins are transported to said storage compartment by the rotational movement of said first and second horizontally moving planar members; and
  - b) accepting infeed of said coins.

95. The method of Claim 94, wherein said system further comprises an opening for the inflow of coins configured to accept a plurality of coins.

96. The method of Claim 94, wherein said system further comprises a single opening for the inflow and outflow of coins.

5 97. The method of Claim 94, wherein said coins comprise coins of greater than four denominations

98. The method of Claim 94, wherein said system comprises at least four of said coin storage compartments.

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99. The method of Claim 94, wherein said coins move through an opening in a countertop during the process of inflow and storage.

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